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August 25, 1994

DOCKET FILE COPY ORIGINAL Mr. William F. Caton **Acting Secretary** Federal Communications Commission 1919 M Street, N.W., Room 222 Washington, D.C. 20554

Re:

PR Docket No. 93-61 Ex Parte Presentation

Dear Mr. Caton:

On August 25, 1994, a copy of the attached letter was sent to the Commission staff listed below. Two copies of this letter are hereby submitted for the public record in this proceeding, pursuant to 47 C.F.R. § 1.1206(a)(1).

If there are any questions in this regard, please contact the undersigned.

Sincerely,

Counsel for Tetherless Access, Ltd.

cc: Rosalind Allen **Beverly Baker** Lauren J. Belvin Ralph Haller Jane E. Mago Byron Marchant Michael J. Marcus Ruth Milkman Ronald F. Netro David Siddall Richard M. Smith Thomas P. Stanley

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August 12, 1994

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Mr. William F. Caton, Acting Secretary Federal Communications Commission 1919 M Street, N.W., Room 222 Washington, DC 20554 RECEIVED

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

RE: Ex Parte PR Docket No. 93-61

Dear Mr. Caton:

On August 4, 1994, Mr. Richard Engleman, Chief Technical Standards Branch, FCC Office of Engineering and Technology contacted several parties to the above proceeding concerning an informal technical proposal developed by the Commission's staff. The proposal detailed several technical threshold suggestions which may permit the sharing of the 902-928 MHz band. Mr. Engleman requested comments on the proposal be submitted to the Commission by August 12, 1994.

Tetherless Access Ltd. wishes to provide the following comments specifically addressing the proposal. We request that these comments be included in the record of the above proceeding.

1. There should be no above ground height restrictions on Part 15 outdoor antennas. Such restrictions are without merit and would have a devastating effect on the many such devices that are already in the field and those that will be sold in the future.

As an example, an antenna which is only 5 meters above the ground at a height of 1000 ft. above the average terrain would probably have a much greater potential for causing interference than an antenna which is 50 ft. above ground at zero feet above the average terrain. It should be clear from this example that such "simple" height restrictions will not go very far towards reducing potential interference in the band by outdoor Part 15 devices.

Our company is one of many Part 15 device manufactures who market products which depend upon the use of outside antennas. Our company requires that our customers mount an external antenna on the outside of the structure in which our device is operated. Together with antennas with sufficient height above ground and directional antennas, we have been able to offer products which can communicate over the distances required to cover metropolitan areas at low power. To date we know of no instances where the use of such products have caused any harmful interference to other Part 15 devices in the band. Given this situation, we

are unable to understand why the Commission has proposed to single out this class of Part 15 device for such restrictions. If the Commission feels that potential interference will be caused to AVM/LMS systems if this restriction is not put in place, then we would ask that they make public the reasoning behind this conclusion. The adoption of such a restriction will severely effect our business in a negative manner just as it will the other Part 15 companies who market this type of product.

- 2. The proposed "threshold" for Part 15.245 Field Disturbance Sensors is not a reasonable approach to handling such devices as it will only serve to outright prohibit them from operation in the band.
- 3. If the compromise proposal is adopted by the Commission, then in order to permit the continued operation of the Field Disturbance Sensors in this band, no AVM/LMS operations should be allowed in the 902-905 MHz band.
- 4. In addition to the forward link provisions, it will be necessary to develop power limits and duty cycle limits for the AVM/LMS reverse links. Because these reverse links are wideband transmissions, some limits must be placed on their operations so that they do not eliminate the possibility of Part 15 devices being able to share the band.
- 5. Narrowband (no mare than 25 KHz) AVM/LMS forward links should be allowed only in the 927.5 and 928.0 MHz band. Locating these forward links at the edge of the band will make it easier to avoid the forward links, and will not unduly restrict other band users operations because there are already paging system operating at 929 MHz. Operation of the forward links in the manner suggested would permit the AVM/LMS multilateration systems to operate with the full protection of Part 15.5 of the rules.
- 6. No wideband AVM/LMS forward links should be permitted. Such wideband forward links will likely cause harmful interference to all users in the particular frequency band. This prohibition should not impact the functionality of multilateration systems because the forward link is essentially a paging channel and does not play a part in the actual location process.
- 7. The wideband LMS proponents are on the record various times in the past year stating that Part 15 devices should cause them no harmful interference. Therefore we fail to see why any restrictions are being proposed to limit the operation of Part 15 devices in this band.
- 8. We feel that any proposed solution on this matter should offer some solution to the problem of harmful interference to Part 15 device by AVM/LMS systems. In particular, since LMS is a new service, we feel that any LMS rules should be structured so that LMS operations do not significantly impair existing Part 15 operations. It should be understood however that we are not requesting any new

operational prerogatives for Part 15 devices. All we are asking for is additional time for the appropriate Notice and Comment cycle for all parties concerned to comment on how this new service can be started in such a fashion as to minimize the potential for harmful interference to both new and existing services.

- 9. Before any further action is taken by the Commission on this matter, a series of tests should be defined and executed in order to determine the degree of interference caused by Part 15 devices to AVM/LMS systems and vice versa. To do anything less at this time we feel would be foolhardy on the part of the Commission.
- 10. In particular, we would call your attention to a recent report issued by the Commission (GN-163, August 9, 1994). In section 50 of that report the Commission stated:

"It will be extremely difficult to provide a licensed service in this band because of its heavy use by ISM equipment. Further, installing a licensed service in this band may result in a loss to the public of Part 15 spread spectrum communications equipment as well as possibly preventing use of this band for Amateur service operations. The benefits of providing short-range communications via unlicensed low power devices is generally recognized, and interest in such devices is growing."

Although the comments above are in reference to the proposed reallocation of the 2402-2417 MHz band by the NTIA, we feel that they are equally valid for the 902-928 MHz band. In fact, much more so as there are many more Part 15 and ISM devices in this band today then in the higher band. We fail to see how the Commission can recognize the difficulty in providing new licensed services in the 2402-2417 MHz band on one hand and not apply the same reasoning to the 902-928 MHz band.

In conclusion, we thank you for the opportunity to comment on your proposal in this informal fashion and hope that our comments assist you in your decision making process in this matter.

Very truly yours,

Dewayne Hendricks President/CEO

cc: Mr. Richard Engleman, FCC